ork Ord Sune-12-13 9:1	er ID 102915 6:39 AM		*102	915*						Page 1
Item ID: Revision ID:	D3463-042		Accept	*N900	040	100)* s	etup Star	t *N	S1*
Item Name:	Step Weldment Assembly	i.						Stop	, *N	S2*
Start Date: Required Date: Reference:	6/11/13 Start Qty: 4.0 6/11/13 Req'd Qty: 4.0	17.1		Cust Item I Customer:	D:					
Approvals:	Process Plan: ML	Date: 13-06-13	Tooling:	Da	ate:		R	lun Star	171	R1*
7	QC:	Date:	SPC (Y/N):	Da	ate:			Stop	` *N	R2*
Sequence ID/ Work Center I	Operation D Description		Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr									11.6
D3463	Rev B									14,2
100 *100*	Large Fab		0.00							
Large Fab Large Fab	***Lea	assembly as per dwg D3463 using ave a small none welded area on ovater***	g DT8875 M12609	18 163-3 step to						•

110

QC9- Inspect visual per QSI004- Fusion Welds

0.00

110

Memo

0.00

1 B 14-8-13

Quality Control

120

QC5- Inspect part completeness to step on W/O

0.00

120

Memo

0.00

Quality Control

DQA: Date:				·								**	*DART	
QA Closed:		Date:			WORK ORDER NON-	-C(ONFO	RMANCE / UI		Work O	rder u	pdate only	-1	AEROSPACE
Morle Orde	\ P.	· ·			DISPOSITION				AGAINST	DEPART	MENT	/PROCESS		
Work Orde	:·				Rework	1		Skid-tube	Crosstube	7		Water Jet	\neg	Engineering
Part N	lo				Scrap			Machining	Small Fab		Pro	d. Eng. Coor.		Quality
					Use-as-is		Therr	noforming	Finishing	R	ec/Sto	re/Packaging		Other
NCR N	10			<u> </u>	Suspected Unapproved]		Large Fab	Composite			Supplier		. 📙
Root			·	Desc	ription of work order update		nitial	Act	ion	Sig	gn &			
Cause	Date	Step	Qty		or non-conformance	Ch	ief Eng	Descr	iption	, C	ate	Verification	1	QC Inspector
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Doc/Data														
Equip/Tooling			1											
Handling/Pre														
Material														
Operator						1								•
Offset/Setup													l	
Process						1								
Supplier						1								
Training			:]	İ	(
Transport										.	•			
Unapproved												<u> </u>		
						FA	ULT CA	regory						
Landi	ng Gear			,	General		1		r	 1		r	_	
	Bending				Bend	<u> </u>	1	Program				nensions	_	Pressure/Forced
	Centre N	lot Conce	ntric	<u> </u>	BOM/Route		Grain				•	tolerance		Set-up
	Cracks			_	Broken/Damage/Defect	<u> </u>	Hardwa				Incorre	- · · · · · · · · · · · · · · · · · · ·	-	Temperature/Cure
	—	ink/Ripple	e/Wave		Burrs	<u></u>	1 '	ion Incomplete/Ur			Lost/M	- I	_	Weld
	Cuffs			_	Contamination	<u></u>	4	ions incomplete/U	Inclear	 i	Moved	•	\	Wrong Stock Pulled
	Crushing				Countersink	\vdash	1 1	gned/off center	1. The state of th		ioned \			
	Heat Tre				Cut Too Short	<u></u>	Mislabe		M. T.	Pow	er Loss/	/Surge		Other
		on Strip in	Tube	<u> </u>	Drawing		Misrea							
	Marks/C			<u> </u>	Drill Holes		Off-set	:						
		Sequence			Finish		4	Calibration						
	Wave/Tu	wist in Tul	be		Fit/Function		Out of	Sequence						

Work Ord June-12-13 9:1		2915		*102	915*			1 100	Page 2
Item ID: Revision ID: Item Name:	D3463-042 Step Weldmer	at Assembly		Accept	*N900	04010 0)* s	etup Start Stop	*NS1* *NS2*
Start Date: Required Date Reference:	6/11/13	Start Qty: 4.00 Req'd Qty: 4.00	*4* *4*		Cust Item II Customer:	D:			
Approvals:		n:		Tooling: SPC (Y/N):		ite:	R	tun Start Stop	*NR1* *NR2*
Sequence ID/ Work Center I	ID	Operation Description	001005 4 2 541	Set Up/ Run Hours	Tool ID	Tool # Plan Code	Accept Qty		Reject Insp. Number Stamp
120 Powdercoat Powder Coating		START TIM OVEN TEM	is indicated on dwg D3463	0.00 (holes, threads)					CL/408·17
140 *140* HandFinish Hand Finishing		Wing Walk as per dwg Q Memo	S1005 4.4 Batch ML 7	0.00			[X C	1 1	14/08/17
150 *150*		QC3- Inspect Part Finish		0.00		DAS 30 9-89			14(28/12

0.00

Memo

Quality Control

DQA:			Date:												TC
QA Closed:			Date:			WORK ORDER NON-	-CC	ONFO	RMANCE / UF		Nork Order	rundat	e only	AEROSP	ACE
QA Closed.		- 	Date.				_			···········	Work Order	upuat	e Only	1	
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					_	Rework			Skid-tube	Crosstube		٧	Vater Jet	Engineering	
Part N	No.					Scrap			Machining	Small Fab	- · · · ·	Prod. Er	ng. Coor.	Quality	
						Use-as-is		Thern	noforming	Finishing	Rec/S	tore/P	ackaging	Other	
NCR N	No				_ !	Suspected Unapproved			Large Fab	Composite			Supplier]	
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Root					Descr	ription of work order update	ŀ	nitial	Acti		Sign &				
Cause		ate	Step	Qty		or non-conformance	Ch	ief Eng	Descri	iption	Date	V	erification	QC Inspect	or
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Unapproved *		1													
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Landir	ng Gear					General									
[nding				Bend		Folio/P	rogram	Γ	Outside [Dimensi	ons	Pressure/Forced	Ŀ
	-		t Concer	ntric	П	BOM/Route		Grain	· ·		Over/Und	der tole	rance	Set-up	
	Cra	cks				Broken/Damage/Defect		Hardwa	re		Part Inco	rrect		Temperature/Co	ure
	Crir	np/Kinl	k/Ripple	/Wave	-	Burrs		Inspecti	on Incomplete/Un	qualified	Part Lost,	/Missin	3	Weld	
	Cuf	fs				Contamination		Instruct	ions Incomplete/U	Inclear	Part Mov	ed		Wrong Stock Pu	lled
	· Cru	shing				Countersink		Misalig	ned/off center		Positione	d Wron	g	_ _	
	Hea	at Treat				Cut Too Short		Mislabe	eled		Power Lo	ss/Surg	e [Other	
	Ins	pection	Strip in	Tube		Drawing		Misread	d	,					
	Ма	rks/Cha	atter			Drill Holes		Off-set							
	Tur	ning Se	quence			Finish		Out of (Calibration						
	Wa	ve/Twi	st in Tub	e		Fit/Function		Out of S	Sequence						

Work Ord June-12-13 9:1		2915		*102	915*						Page 3
Item ID: Revision ID: Item Name:	D3463-042 Step Weldmen	t Assembly		Accept	*N900	040	100)* s	etup Star Stop	IV	S1* S2*
Start Date: Required Date: Reference:	6/11/13 : 6/11/13	Start Qty: 4.00 Req'd Qty: 4.00	*4* *4*		Cust Item I Customer:	D:					
Approvals:		n:	Date:	Tooling: SPC (Y/N):		ate:		R	un Star Stop	,IZI	R1* R2*
Sequence ID/ Work Center I 160 *160* Packaging Packaging	D	Operation Description Identify as per dwg & St Memo	ock Location:	Set Up/ Run Hours 0.00	Tool ID	Tool #	Plan Code DAS 30 9-89	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
170 *170* QC Quality Control		QC21- Final Inspection Memo	- Work Order Release	0.00				MUS	<u>\</u>	ار <u>ع</u> 180	3 1408 13

DQA:		_ Date:									MART	
QA Closed:		Date:			WORK ORDER NON-CONFORMANCE / UPDATE Work Order update only							AEROSPACE
Q. r. c.losea.		- Juice								·	- · · · · · · · · · · · · · · · · · · ·	1
Work Orde	er:				DISPOSITION			AGAINST	r DE	PARTMENT	/PROCESS	,
					Rework	7		Skid-tube Crosstube	٦]	Water Jet	Engineering
Part N	No				Scrap	1		Machining Small Fak	\Box	Pro	d. Eng. Coor.	Quality
					Use-as-is]	Thern	noforming Finishing	3	Rec/Sto	re/Packaging	Other
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Root			۵.	Desci	ription of work order update	1	Initial	Action		Sign &		
Cause	Date	Step	Qty	1	or non-conformance	Cr	nief Eng	Description		Date	Verification	QC Inspector
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Handling/Pre	\vdash											
Material Operator								·		1		
Offset/Setup					•					-		
Process												
Supplier											, i	
Training												
Transport				<u> </u>						-		
Unapproved		-										:
		- 	<u> </u>			FA	ULT CAT	TEGORY		•	=	
Landi	ng Gear				General							
1	Bending				Bend		Folio/P	Program		Outside Dim	ensions	Pressure/Forced
	Centre N	lot Concer	ntric		BOM/Route		Grain			Over/Under	tolerance	Set-up
	Cracks				Broken/Damage/Defect		Hardwa	ire		Part Incorred	ct	Temperature/Cure
	Crimp/K	ink/Ripple	/Wave		Burrs		Inspect	ion Incomplete/Unqualified		Part Lost/Mi	ssing	Weld
	Cuffs				Contamination		Instruct	tions Incomplete/Unclear	L	Part Moved	L	Wrong Stock Pulled
	· Crushing	3			Countersink		Misalig	ned/off center	L	Positioned V	Vrong	· .
	Heat Tre			<u> </u>	Cut Too Short		Mislabe			Power Loss/	Surge	Other
		on Strip in	Tube		Drawing		Misread					
	Marks/C				Drill Holes		Off-set					
	_	Sequence		<u> </u>	Finish	_	-	Calibration				
	Wave/T	wist in Tub	е		Fit/Function		Out of S	Sequence				

Page 1

Work Order ID:

102915

Parent Item:

D3463-042

Parent Item Name:

Step Weldment Assembly

Start Date: 6/11/13

Required Date: 6/11/13

Start Qty: 4.00

Required Qty: 4.00

Parent Item Name:	Step Weldment Ass	sembly						Si	art Qty: 4.00		Kequirea	Qiy: 4.00	
Comments:	IPP REV. A 05.	11.18 new issue	EC										
Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
38-806 S DOWEL PIN 1" LONG	3	Purchased	No			100	Each	64.0000	2	8			14-08.
				Location ST396	110	<u>Loc Oty</u> 64 64	<u>Lo</u>	oc Code	7 7				JA
3 453-3 Elevis		Manufactured	No	(120	119	100	Each	10.0000	1	4		/	14-08-1 ML
				Location WA002 \(\int \int \int \int \int \int \int \int		Loc Oty 10 2 8	<u>Lc</u>	oc Code	<u> </u>	<u> </u>			,
93453-5 Plug		Manufactured	No	909.	33	100	Each	19.0000	1	4			14-08
				Location WA002	9137	<u>Loc Qty</u> 19 19		oc Code					
03463-1 Arm		Manufactured	No			100	Each	5.0000	1	. 4			14-08
				972	2331]	<u>Loc Qty</u> 4 4	<u>L</u>	oc Code	<u>: 1</u>	1			J.
				972 WA002	04	4							

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DQA: Date:				·			_					**	1 PT	
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QA CIOSCU.		Dute.			<u> </u>						•	· · · · · · · · · · · · · · · · · · ·		
Work Orde	er:				DISPOSITION				AGAINST	DEI	PARTMENT	/PROCESS		
					Rework]		Skid-tube	Crosstube		,	Water Jet	Engine	ering
Part N	No.				Scrap		1	Machining	Small Fab		Pro	d. Eng. Coor.	Qu	ality
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NCR N	No				Suspected Unapproved			Large Fab	Composite [Supplier		
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Root				Desc	ription of work order update	l	nitial	Act			Sign &	_		
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Landi	ng Gear				General									
	Bending	[Bend	Г	Folio/F	rogram			Outside Dim	ensions	Pressure/	Forced
		, Not Conce	ntric		BOM/Route		Grain	J			Over/Under	tolerance	Set-up	
	Cracks				Broken/Damage/Defect		Hardwa	re			Part Incorre	ct	Temperat	ure/Cure
	Crimp/k	(ink/Ripple	e/Wave		Burrs		Inspect	on Incomplete/Ur	nqualified		Part Lost/M	issing	Weld	
	Cuffs				Contamination		Instruct	ions Incomplete/U	Jnclear		Part Moved		Wrong Sto	ock Pulled
	· Crushin	g			Countersink		Misalig	ned/off center	[Positioned V	Vrong	-	
	Heat Tro	eat			Cut Too Short		Mislabe	eled			Power Loss/	Surge	Other	
	Inspecti	on Strip in	Tube		Drawing		Misread	t						<u>.</u>
	Marks/0	Chatter			Drill Holes		Off-set							
	Turning	Sequence		L.	Finish		4	Calibration						
	Wave/T	wist in Tul	be		Fit/Function		Out of	Sequence						

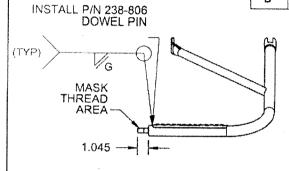
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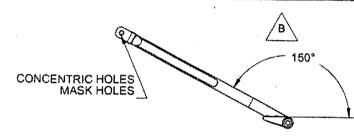
Work Order ID: Parent Item: Parent Item Name:	102915 D3463-042 Step Weldment Ass	sembly						Date: 6/11/13 Qty: 4.00		Required Date: 6/11/13 Required Qty: 4.00
D3463-3		Manufactured	No	•	100	Each	13.0000	1	4	14-08-13
Step				Location WA001 12 236 7 86814 97166 WA002	Loc Oty 11 10 2		Loc Code	; _j		14-08-13 MBL
D3463-5	·	Manufactured	No	78886	100	Each	47.0000	2	8	14-A-13 1BC
End Cap	•			Location WA002 100476 89329 97231	Loc Qty 47 3 44		Loc Code	1,2		JBC.
D3463-7		Manufactured	No	<i>31231</i>	100	Each	7.0000	1	4	14-08-1
Drag Arm				Location WA002 M3/59 78202 82308 97188	Loc Qty 7 2 3 2		<u>Loc Code</u>			JBC

DQA: Date:		WORK ORDER NON-CONFORMANCE / UPDATE									[®] ΛΔRT				
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QA Closed.		Date.										·			1
Work Orde	er:				DISPOSITION				AGAINST D	EPARTM	ENT,	/PROCESS			
					Rework			Skid-tube	Crosstube	\neg		Water Jet		Engineering	ı
Part N	lo.				Scrap			Machining	Small Fab		Pro	d. Eng. Coor.		Quality	ı
					Use-as-is		Thern	noforming	Finishing	Rec	/Stoi	re/Packaging[. Other	ı
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Cause	Date	Step	Qty		or non-conformance	Ch	ief Eng	Desci	ription	Dat	e	Verification	1	QC Inspector	
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		ink/Ripple	ΛΝονο	-	Burrs	\vdash	4	ion Incomplete/U	ngualified	Part Lo			_	Weld	ļ
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ł	Heat Tre				Cut Too Short		Mislabe			Power			\neg	Other	
		on Strip in	Tube		Drawing		Misrea				1				
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		wist in Tub			Fit/Function		4	Sequence							
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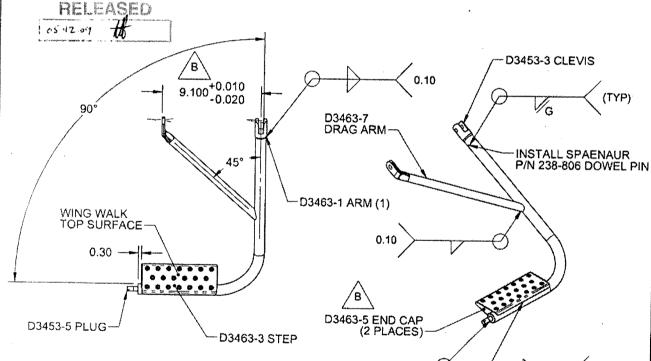


DESIGN DRAWN BY DART AEROSPACE LTD RF RF HAWKESBURY, ONTARIO, CANADA CHECKED APPROVED / DRAWING NO. REV. B D3463 SHEET 1 OF 4 DATE TITLE SCALE 05.12.05 STEP WELDMENT 1:8 Α 05.09.20 **NEW ISSUE** В 05.12.05 REVISE DIM.; D3463-5 WAS D3463-5F





(TYP)



NOTES:

D3463-041 OPPOSITE

D3463-042 STEP WELDMENT ASSEMBLY

- 1) WELD PER DART QSI 004
 2) FINISH: POWDER COAT WHITE (4.3.5.2) PER DART QSI 005 4.3
 BLACK ANTI-SKID PAINT PER DART QSI 005 4.4
 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
 4) ALL DIMENSIONS ARE IN INCHES
 5) BREAK ALL UNMARKED SHARP EDGES 0.005 TO 0.010
 6) IDENTIFY WITH DART P/N USING FINE POINT PERMANENT INK MARKER

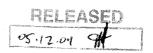
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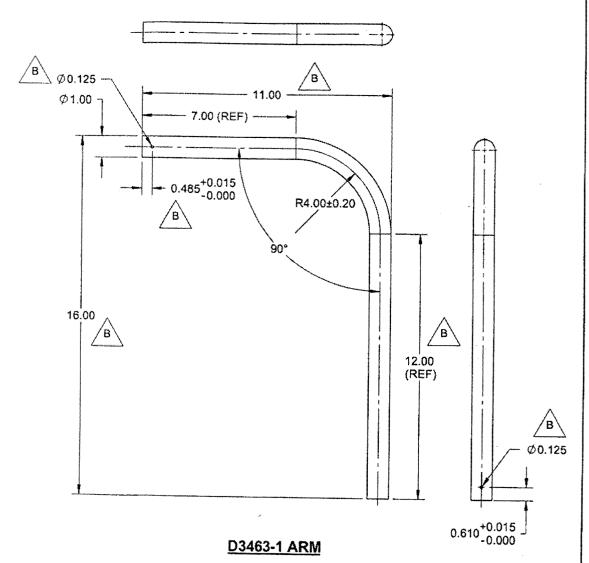
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DESIGN RF	DRAWN BY RF	DART AEROSPA HAWKESBURY, ONTAR	
CHECKED	APPROVED #	D3463	REV. B SHEET 2 OF 4
DATE 05.1	2.05	STEP WELDMENT	SCALE 1:4





NOTES:

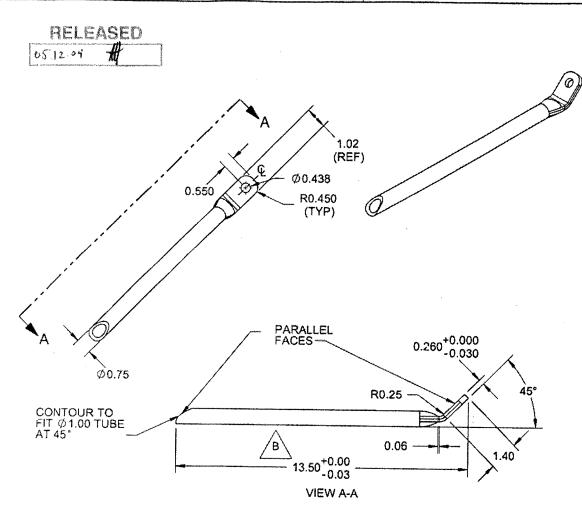
- 1) MATERIAL: AISI 316/304 SS SEAMLESS TUBING (REF. DART SPEC. M304TR1.000W.120) 2) FINISH: NONE
 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
 4) ALL DIMENSIONS ARE IN INCHES
 5) BREAK ALL UNMARKED SHARP EDGES 0.005 TO 0.025

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DESIGN RF	DRAWN BY RF	DART AEROSPA HAWKESBURY, ONTARI				
CHECKED	APPROVED #	DRAWING NO. D3463	REV. B SHEET 3 OF 4			
DATE 05.1	2.05	STEP WELDMENT	SCALE 1:4			



D3463-7 DRAG ARM

NOTES:

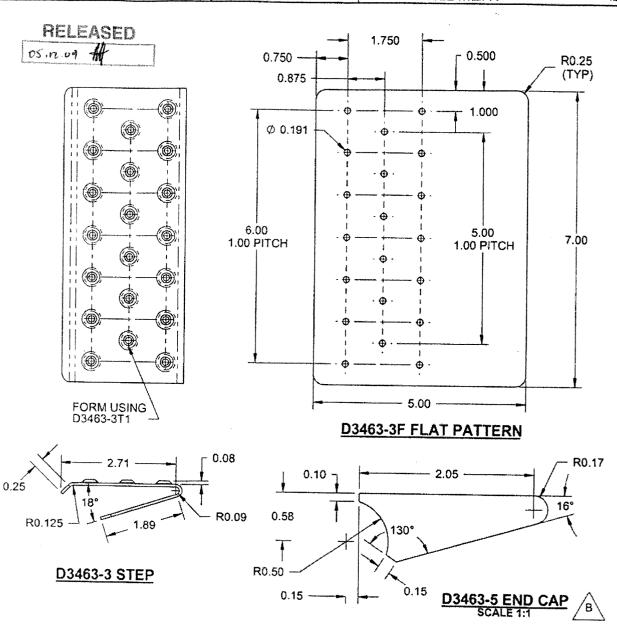
- 1) MATERIAL: AISI 316/304 SS SEAMLESS TUBING (REF. DART SPEC. M304TR0.750W.120) 2) FINISH: NONE 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED 4) ALL DIMENSIONS ARE IN INCHES 5) BREAK ALL UNMARKED SHARP EDGES 0.005 TO 0.010

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DESIGN RF	DRAWN BY RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED	APPROVED A	D3463	REV. B SHEET 4 OF 4
05.12.05		STEP WELDMENT	SCALE 1:2



NOTES:

- 1) MATERIAL: AISI 304/316 SS SHEET, 0.060 THICK (REF. DART SPEC. M304S16GA) 2) FINISH: NONE 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED 4) ALL DIMENSIONS ARE IN INCHES 5) BREAK ALL UNMARKED SHARP EDGES 0.005 TO 0.010

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